

ABSTRACT

A process and apparatus for creating an acoustically absorbent porous panel comprises the steps of dispensing cement and fibers with a dry mixer to create a dry mix and aqueous mixing water, surfactant and air with an aqueous mixer to create a foam. The process and apparatus provides for combining and mixing the foam and dry mix in a combining mixer to form a foamed cementitious material comprising on a wet basis about 53% to about 68% by weight cement, about 17% to about 48% by weight water, about 0.05% to about 5% by weight fibers, and about 0.01% to about 10% by weight surfactant. The foamed cementitious material is then dried or cured in a drying chamber. The dried foamed cementitious material may then textured with an embossing roller. The cementitious material provides good acoustical performance with enhanced durability and moisture resistance.